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## LIGHTING APPARATUS USING MICROWAVES

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

[0001] The present invention relates to a lighting apparatus using microwaves and in particular to a lighting apparatus using microwaves which is capable of emitting lights by applying microwaves an electrodeless bulb.

#### 2. Description of the Conventional Art

[0002] A lighting apparatus using microwaves emits visible rays or ultraviolet rays by applying microwaves to an electrodeless bulb, it has longer life span and better lighting effectiveness than a general incandescent lamp or a fluorescent lamp.

[0003] Figure 1 is a longitudinal sectional view illustrating an internal structure of a lighting apparatus using microwaves.

[0004] A lighting apparatus using microwaves includes a magnetron 1, a waveguide 3 transmitting microwaves from the magnetron 1 to a bulb 5, the bulb 5 emitting light from the plasma generated from the enclosed materials which are excited by the microwave energy transmitted through the waveguide 3, and a resonator 10 placed in front of the waveguide 3 and the bulb 5, excluding the microwaves and transmitting the light emitted from the bulb 5.

[0005] Particularly, the resonator 10 has a cylindrical shape and has a metal mesh structure in order to exclude microwaves while transmitting the light emitted from the bulb 5.